

**Earnings Inequality and Immobility for Hispanics and Asians:
An Examination of Variation Across Subgroups**

by

Randall Akee
UCLA, Brookings Institution and NBER

Sonya R. Porter
U.S. Census Bureau

Emilia Simeonova
Johns Hopkins University and NBER

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Abstract

Our analysis provides the first disaggregated examination of earnings inequality and immobility within the Hispanic ethnic group and the Asian race group in the U.S. over the period of 2005-2015. Our analysis differentiates between long-term immigrant and native-born Hispanics and Asians relative to recent immigrants to the U.S. (post 2005) and new labor market entrants. Our results show that for the Asian and Hispanic population aged 18-45, earnings inequality is constant or slightly decreasing for the long-term immigrant and native-born populations. However, including new labor market entrants and recent immigrants to the U.S. contributes significantly to the earnings inequality for these groups at both the aggregate and disaggregated race or ethnic group levels. These findings have important implications for the measurement of inequality for racial and ethnic groups that have higher proportions of new immigrants and new labor market entrants in the U.S.

Keyword: Earnings immobility, earnings inequality, race, ethnicity, data disaggregation

JEL Classification: J1, J61

* Any opinions and conclusions expressed herein are those of the authors and do not reflect the views of the U.S. Census Bureau. The Census Bureau has reviewed this data product for unauthorized disclosure of confidential information and has approved the disclosure avoidance practices applied to this release (Approval ID: CBDRB-FY19-170, CBDRB-FY19-370, CBDRB-FY19-CES005- 015). Any errors are ours alone. Akee and Simeonova acknowledge funding from the Robert Wood Johnson Foundation. Author contact information: Akee: rakee@ucla.edu

1 Introduction

There is a reemergence of interest in understanding and ameliorating racial and ethnic inequities. A vast literature explores and documents the income, earnings, and wealth inequities between the African American and White populations in the United States (Bloome, 2014; Bloome and Western, 2011; Chetty et al., 2020; Derenoncourt and Montialoux, 2021; Reardon and Bischoff, 2011). There is also a growing body of literature that documents the evolution of income inequities for other racial and ethnic groups (Akee et al., 2019; Budiman et al., 2019; Horowitz et al., 2020; Kochhar and Fry, 2014; Snipp and Cheung, 2016). However, less is known about the experiences of racial and ethnic subgroups within these larger groups primarily due to the fact that reliable analysis of subgroups requires a large amount of observations. Many nationally-representative longitudinal data sets do not collect large enough samples needed to conduct statistical analyses of Asians or Hispanic subgroups in the U.S.

The most recent U.S. Census data for 2020 indicates that these two groups have some of the largest gains in population growth over the past decade; both groups doubled their population shares (Bahrampour and Mellnik, 2021). Asian and Hispanic racial and ethnic groups, when they are included in analyses, are often treated as monolithic or homogeneous. However, in contrast to the myth of the model minority, the experiences of Asian subgroups are varied. While Asian Indians experience high levels of income (median household income in 2017-2019, \$119,000) and low poverty rates (6 percent), at the other end of the spectrum Burmese experience low levels of income (\$44,000) and high poverty rates (25 percent) (Budiman et al., 2019). The experiences of Hispanic subgroups are similarly varied. Argentinians had the highest median income among Hispanics in 2018 (\$68,000), while Hondurans had the lowest median household income in 2018 (\$41,000) (Noe-Bustamante, 2019).

We provide the first in-depth analysis of earnings inequality and immobility within subgroups for Asians and Hispanics in the U.S. We focus on these two groups as they are often unreported in standard inequality analyses due to data limitations. These populations are also of interest due to the relatively large flows of immigrants within these groups in recent decades and because they have relatively young populations as compared to non-Hispanic whites. The immigrant flows in particular are large and may play a role in explaining earnings inequality for these populations.

Using data from the American Community Survey (ACS), we identify Asian and Hispanic individuals and link them to their IRS earnings data (W-2s and 1099 forms). We also identify newly arrived Asian and Hispanic individuals in the age group 18-45 based on responses to the year of immigration question contained in the ACS. We also identify individuals who newly enter the labor force as individuals who have no previous earnings records in the previous year or years. As a result, we can further disaggregate the Asian and Hispanic data into a long-term panel of workers and one that includes new immigrants and new labor market entrants.

Our research explores two avenues of data disaggregation: along subgroups of race and ethnicity as well as between established workers and new immigrants and new labor market entrants. These two dimensions add nuance to our understanding of how earnings inequality and immobility progress. Our analysis makes three contributions to the literature. First, we demonstrate that the share of earnings accruing to the top 10% of the earnings distribution is larger for certain Asian and Hispanic subgroups; the top 10% of the Asian Indian and Cuban earnings distribution tends to have a much larger share of earnings than other groups within their race or ethnic group. This type of variation is often obscured when data is either not reported for these groups or are aggregated up.

The second finding is that there are level differences in earnings inequality across the various Asian race subgroups and Hispanic ethnic subgroup. When we separate out new labor market entrants and immigrants, we find that the level of earnings inequality is level or slightly downward trending over the period 2005-2015 for the long-term immigrants and native-born Asian and Hispanic population. This indicates that the inclusion of new labor market entrants and recent immigrants to the U.S. are important determinants in explaining an upward trend in earnings inequality for these populations. These results are especially true after the start of the Great Recession period. This suggests that some observed earnings inequality is driven by younger workers and newly arrived workers in the U.S. at least for Asians and Hispanics who have relatively large immigration flows and a younger population than Non-Hispanic Whites (Budiman et al., 2019; Noe-Bustamante, 2019; Schaeffer, 2019).

Finally, we find that earnings immobility has been increasing over the 2005-2015 period for all subgroups within the Asian racial group and the Hispanic ethnic group. While there is little to no change in earnings inequality for these groups, there is also very little movement within the earnings distribution. We do find evidence that the various Hispanic subgroups have slightly lower levels of earnings immobility, on average, as compared to non-Hispanic whites. Asian subgroups have approximately similar levels of earnings immobility to that of non-Hispanic whites.

2 Data

In this analysis we link confidential-use individual records from the American Community Survey to the Internal Revenue Service W2 and 1099 forms. We create a novel panel data set that follows the evolution of earnings within disaggregated Hispanic ethnicity groups and the Asian race group in the U.S. over the time period 2005-2015. We disaggregate the Hispanic category into individuals of Mexican, Central American, Puerto Rican, Cuban, Spanish, and South American descent; these are the largest sub-categories in the aggregated Hispanic ethnic group. Similarly, we disaggregate the Asian race category into Asian Indians, Chinese, Filipino, Japanese, Korean, Vietnamese and Other Asians.

Our process for linking administrative records starts with the 2005 American Community Survey. This representative survey of the population of the U.S. is conducted annually for approximately 2-3% of the U.S. population. Individual-level records are assigned a protected identification key (PIK) number which is unique across individuals and based on a person's name, birth date, address, and social security number (Wagner et al., 2014). The PIK is then used to identify an individual in the W2 or 1099 data from the IRS. We use both survey weights and inverse probability weights of PIK assignment in the analyses that follow.

In Table 1 we provide the total number of observations for the Hispanic and Non-Hispanic white samples from the 2005 ACS. There are approximately 2,163,000 observations in the 2005 ACS who are between the ages of 18-45 and we are able to assign PIKs to 92% of those observations.¹ In the next row, we show the number of observations that can be found in the IRS W2 or 1099 data which is 1,599,000 or about 81% of the observations with a valid PIK. Similar results are provided in Table 2 for the Asian and Non-Hispanic white samples from the 2005 ACS. There are approximately 1,834,000 observations in this data and we are able to assign PIKS to 93% of those observations. Finally, we are

¹Note that these sample sizes have been rounded according to U.S. Census Disclosure Review Board rules to ensure confidentiality of the data.

able to merge the IRS W2 or 1099 data to about 81% of those observations.

Using the annual earnings data, we create a individual-level panel data set of earnings across the disaggregated subgroups for Hispanics and Asians in the U.S. It is important to note that the panel is fixed at 2005 for our purposes; the data follows the same individuals over time and examines their earnings inequality and trajectories. To be included in the panel data, an individual must have an IRS W2 or 1099 record for at least 2 consecutive years starting in 2005. As a result, our analysis will focus on individuals in the formal labor force and will not include those working in informal activities. We will also not be able to identify undocumented immigrants as they, by definition, will not have administrative records and will be less likely to have been assigned a PIK.

Additionally, we have restricted our analysis to individuals who were 18-45 years old in 2005. We focus on this relatively young population as they are the most likely to be affected by the inflow of new labor market entrants and/or new immigrant arrivals. Older workers from the Asian and Hispanic populations are less likely to experience large new inflows of workers from either of the two sources. We explicitly include individuals who are 18 years old and older to account for potential inflows into the labor market from post-secondary institutions either after degree completion or before.

In Table 3 we provide a table of means for the characteristics of the analysis sample, the sample of individuals with a valid PIK, and all individuals identifying as Hispanic or non-Hispanic white in the 2005 ACS. The table contains three columns of means. We provide a similar table of means for Asians in Table 4. The final sample, in both cases, is positively selected with regard to earnings and income. We expected that our sample, which focuses on documented individuals working in the formal labor market, to have higher earnings and/or incomes than the broader samples contained in the ACS data; this is a result of focusing on the earnings of individuals in administrative data. We do not find a lot of evidence of selection on other characteristics, however.

We disaggregate the Asian race group into its largest subgroups: Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese and Other Asian groups. Similarly, for the Hispanic ethnic category we disaggregate the data into its largest subgroups: Mexican, Puerto Rican, Cuban, Central American, South American.²

Table 1: Match Rates for Hispanics and Non-Hispanic Whites, Ages 18-45

	Count	Percent of Row Above
Total Observations in 2005 ACS	2,163,000	
Matched to PIKS	1,980,000	0.92
Merged to W2 Data in 2005	1,599,000	0.81

Source: American Community Survey Data for 2005 linked to IRS W2 or 1099 data for 2005-2015.

2.1 Including Recent Immigrants and New Labor Market Entrants

While the main focus of this analysis follows a panel of individuals from 2005-2015, we can also conduct separate analyses for new Hispanic and Asian workers over time. We call the first sample the panel data and we call the second the cross section data; the second data set is observationally equivalent to taking

²We do not report the category of Other Asian groups, Spanish or Other Hispanic in our main tables and figures but they are available upon request.

Table 2: Match Rates for Asians and Non-Hispanic Whites, Ages 18-45

	Count	Percent of Row Above
Total Observations in 2005 ACS	1,834,000	
Matched to PIKS	1,702,000	0.93
Merged to W2 Data in 2005	1,377,000	0.81

Source: American Community Survey Data for 2005 linked to IRS W2 or 1099 data for 2005-2015.

Table 3: Table of Means for Hispanics, Ages 18-45

	ACS Means	PIK Matches	W2 Matches
Ages 18-45	37.5	37.7	37.7
Wages/salary	\$30,000	\$31,000	\$36,000
Total Income	\$34,000	\$35,500	\$39,000
Male	0.48	0.48	0.49
Married	0.57	0.58	0.57
HS or Less	0.4	0.39	0.36
Some College	0.31	0.32	0.33
College or More	0.27	0.28	0.29
In School	0.13	0.13	0.14
Hispanic Ethnic Group	0.13	0.1	0.1
Mexican	0.57	0.59	0.59
Puerto Rican	0.16	0.1	0.1
Cuban	0.02	0.03	0.03
Central American	0.09	0.1	0.09
South American	0.06	0.06	0.06
Spanish	0.02	0.03	0.03
Other Hispanic	0.04	0.06	0.06
Non Hispanic White	0.87	0.9	0.9
Total	2,163,000	1,980,000	1,599,000

Source: American Community Survey Data for 2005 linked to IRS W2 or 1099 data for 2005-2015.

a repeated cross section of the Hispanic or Asian population in the U.S. annually where we include new labor market entrants or recent immigrants meeting the same age and ethnicity restrictions as in the 2005 data. These two types of flows, new labor market entrants and recent immigrants, are potentially important for these ethnic/race groups as they have younger age distributions relative to non-Hispanic whites and high recent migration flows into the U.S. (Ong and Nakanishi, 1996; Schaeffer, 2019). As a result, earnings inequality estimates may differ for these groups depending on whether we include or exclude the new labor market entrants and recent immigrants. In order to identify recent arrivals to the U.S., we use information provided on date of arrival in the U.S. in the ACS data. We link those individuals to their W2 and 1099 data for all years subsequent to their arrival. We include individuals in years after 2005 who report not working in the previous year. Finally, we restrict individuals to be within the same age and ethnic groups as the original base population in 2005 (properly adjusted by age for each additional year).

The observations that satisfy these criteria are included in the subsequent Gini coefficient analysis and log ratios of different quantiles of the earnings distribution. A comparison between the main panel data and this cross sectional data will highlight the effect that the new labor force entrants and recent

Table 4: Table of Means for Asians, Ages 18-45

	ACS Means	PIK Matches	W2 Matches
Ages 18-45	37.7	37.9	37.5
Wages/salary	31,500	35,500	38,000
Total Income	36,000	37,000	41,000
Male	0.48	0.48	0.5
Married	0.6	0.61	0.6
HS or Less	0.38	0.37	0.34
Some College	0.32	0.32	0.33
College or More	0.29	0.3	0.32
In School	0.12	0.12	0.13
Asian Race Group	0.05	0.05	0.04
Asian Indian	0.19	0.19	0.19
Chinese	0.24	0.23	0.24
Filipino	0.18	0.19	0.21
Japanese	0.06	0.06	0.06
Korean	0.09	0.09	0.07
Vietnamese	0.1	0.1	0.09
Other Asian	0.1	0.01	0.1
Non Hispanic White	0.94	0.94	0.95
Total	1,834,000	1,702,000	1,377,000

Source: American Community Survey Data for 2005 linked to IRS W2 or 1099 data for 2005-2015.

immigrants have on overall group inequality for each of the Hispanic or Asian subgroups.

3 Analysis of Earnings Shares

Given that we are able to compute the total of earnings by race and ethnic group using the W-2 and 1099 data, we identify the proportion of earnings that accrue to the top and bottom 10% of the earnings distribution by each of the specified groups. We provide the bottom 10%, top 10% (90th percentile and greater), and the top 5% (95th percentile and greater) for both Hispanics and Asians in Appendix Tables A1 and A2 for all years 2005-2015. These proportions illustrate earnings inequality for this sample of employed individuals for the U.S. In particular, these earnings shares indicate the proportion of total earnings for each racial or ethnic subgroup that is captured by either the top (or bottom) 10% of the respective populations. If earnings were completely equitable, then the top 10% and the bottom 10% (and all deciles in between) would all have 10% of the earnings distribution. Any deviation above or below 10% indicates increasing inequality in earnings shares.

Figure 1 provides the share of earnings that accrue to the top 10% of the Hispanic earnings distribution at the two endpoints in time - 2005 and 2015 disaggregated by Hispanic subgroup. There are several points to note from this figure. First, there is not a great amount of change in the decade between 2005 and 2015 in the earnings shares for most of the Hispanic groups. Second, the top ten percent of Cubans appear to be earning approximately 40 percent or more of the total earnings for their subgroup as a whole and this has remained constant between 2005 and 2015. The rest of the subgroups range between 15 percent and the high 30 percent range. In general, all of top 10% of each Hispanic subgroup earns more than their proportion if earnings were distributed equally.

Figure 2 provides a similar set of data for the top 10% of the Asian earnings distribution at two points in time - 2005 and 2015 disaggregated by Asian subgroup. Unlike in the case of Hispanics, there does appear to be relatively large differences in the share of earnings that accrued to the top 10% of the Asian earnings distribution between 2005 and 2015. Asian Indians increased their share from approximately 60% in 2005 to almost 70% in 2015. On the other hand, both the top 10% of the Japanese and Filipino earners realized a decrease in their share of earnings (as a group) by almost a full ten percentage points. The other subgroups do not have as dramatic of changes, however. Another difference from that of the top 10% of the Hispanic earnings in the previous figure is that the magnitude of earnings share accruing to these subgroups is larger, with at least four Asian groups earning above the 40% threshold.

Appendix Figures A1 and A2 provide the share of earnings accruing to the bottom 10% of the earnings distribution for each group. We do not show those results in the main text, but note that none of the Asian groups at the very bottom earn above 1% of the total earnings. We find that Mexicans and Puerto Ricans at the bottom 10% of the earnings distribution earn slightly more than 1% of total earnings for their respective groups. Overall, this indicates that the very bottom of all of the groups are earning very small shares of total earnings for their respective groups.

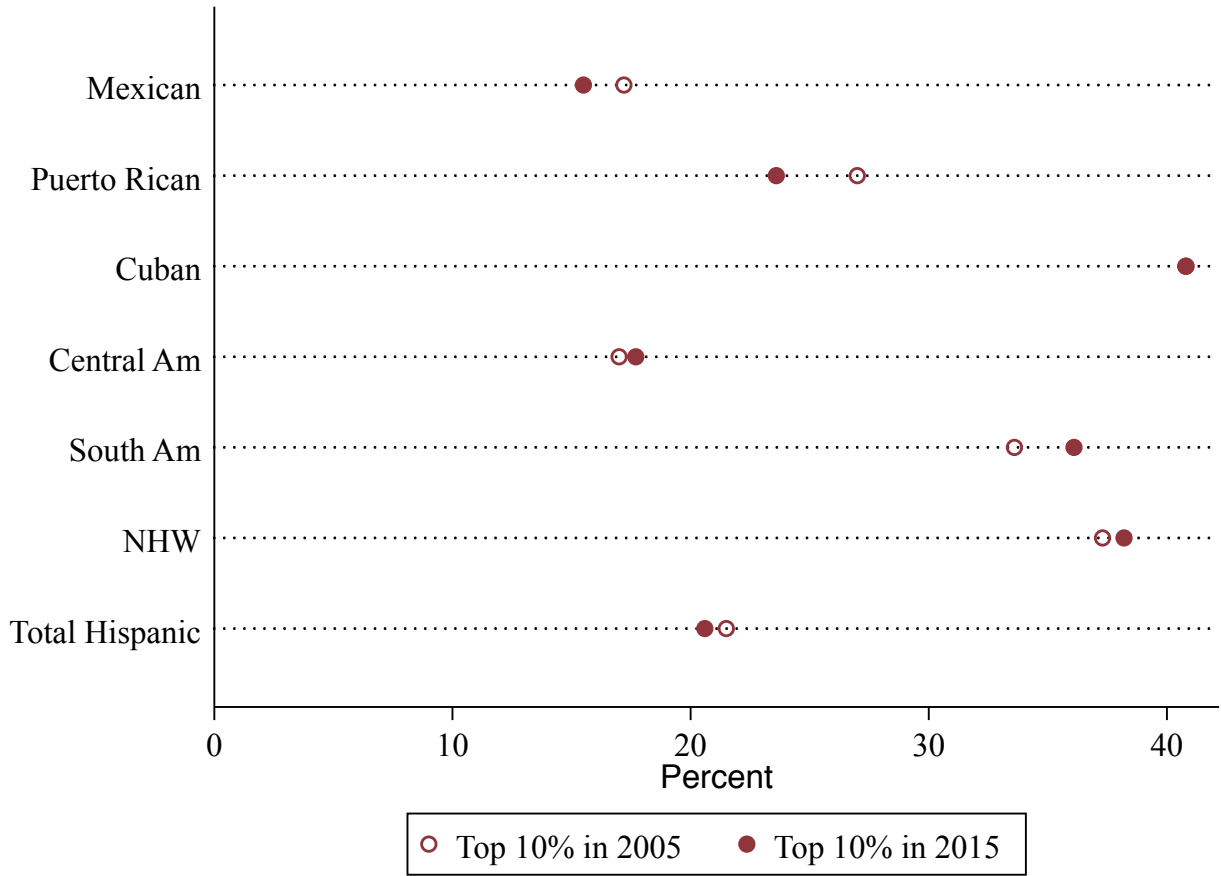
4 Gini Coefficients

In this section we examine a more formal measure of earnings inequality by calculating the Gini coefficient for the Hispanic and Asian subgroups. In the first panel of Figure 3 we plot the Gini coefficients by year for each of the Hispanic subgroups for the panel data.³ The striking finding is that earnings inequality was unusually large in 2010 for Cubans. This marks the high-point of the Great Recession with respect to the level of unemployment in the country. This result suggests that the Great Recession resulted in a substantial reduction in the earnings of a large amount of the Cuban population, possibly due to either layoffs or reduced work hours. All other groups experience a slightly downward trend. Central Americans and Mexicans have the lowest level of earnings inequality for all years; both groups are below the Total Hispanics average for all years. On average, however, there appears to be a level or even slight downward trend in the Gini coefficient over time. This indicates that for the consistent panel of Hispanic earners, there is evidence that inequality remains constant or flat over time.

In the second panel of Figure 3 we add the new Hispanic labor market entrants and recent Hispanic immigrants to the panel data set as described above. We call this data the cross-section data as it replicates a standard cross-sectional sample that would be present in any publicly available dataset. Our main finding is that the Gini coefficients appear to increase for the majority of groups in the post-Great Recession years starting in 2010. The cross-section data for Cubans appears to remain constant over most of the years in our data. The results suggest that new labor market entrants and new immigrant arrivals are responsible for the increase in earnings inequality for these groups. These new labor market entrants may be individuals who have recently graduated from high school or non-graduates. Notably, this is not a large difference for the non-Hispanic whites; this may be explained by the fact that both the proportion of new labor market entrants and the proportion of new immigrants

³Appendix Figure A3 provides the same set of figures with 2005 as the base year and subsequent years as deviations from this initial value normalized to one.

Figure 1: Top 10% Earnings Shares Panel for Hispanics in 2005 and 2015



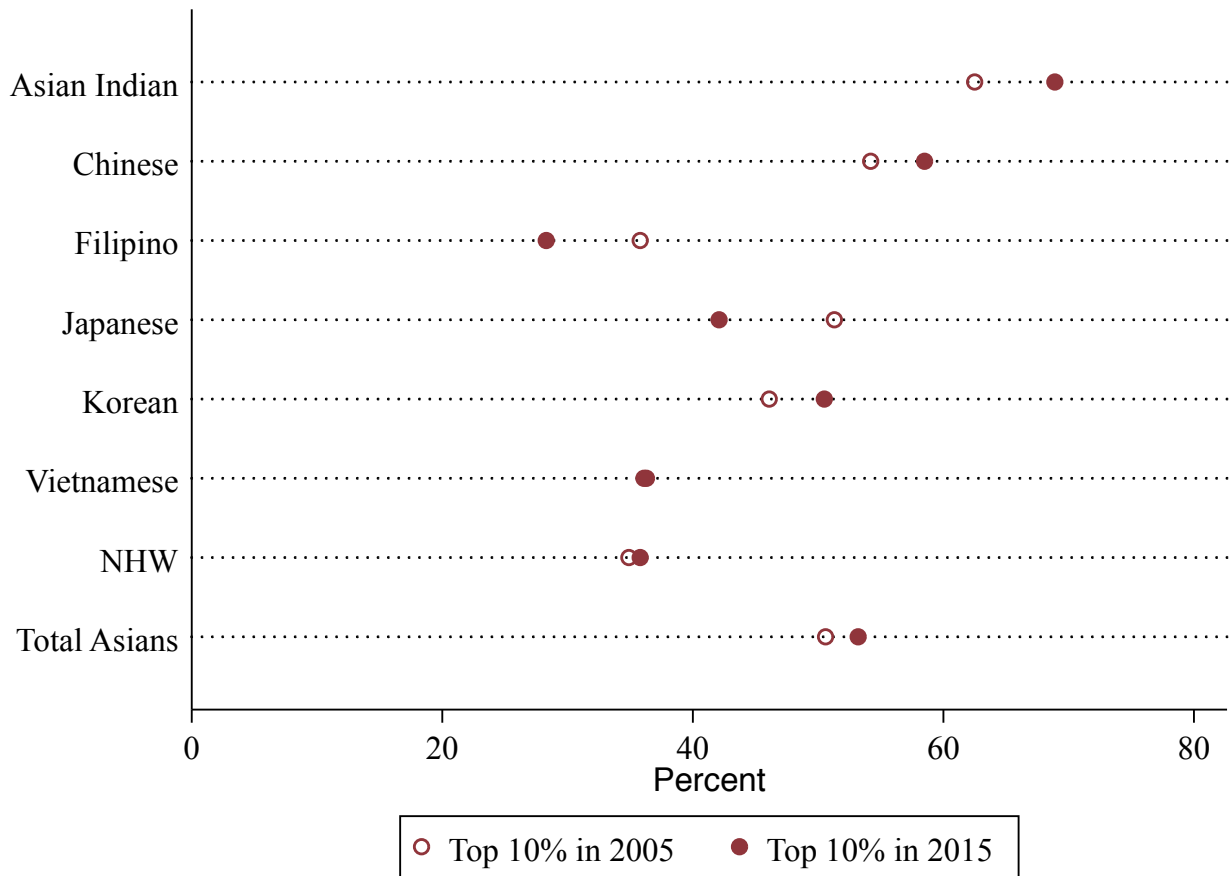
Notes: Income shares for the top ten percent are calculated for all individuals within each of these ethnic group subpopulations for the year 2005 and 2015 and plotted accordingly. The category of non-Hispanic white is provided as a comparison; the Total Hispanic category indicates what would typically be shown with disaggregated data.

for this race group are small relative to the overall population for non-Hispanic whites in the U.S. and are not large enough to drive changes in earnings inequality.

The first panel of Figure 4 provides the Gini coefficients for Asians within the panel data set. On average, Filipinos tend to have much lower earnings inequality than all of the other Asian groups across all of the years in our data. Chinese and Asian Indians have higher earnings inequality than the other groups and there appears to be a slight increase for Asian Indians after 2010. Overall, there is a fairly constant level of earnings inequality for most of the other groups in this figure.

The second panel of Figure 4 includes both the panel observations for the Asian group and the new labor market entrants and recent Asian immigrants. This cross-section data indicates that there is an increase in earnings inequality over time for both Asian Indians, Chinese and Koreans. There is little increase in earnings inequality for Japanese, Vietnamese or Filipinos over this time period. Clearly, immigration plays a role in earnings inequality for certain race and ethnic groups.

Figure 2: Top 10% Earnings Shares Panel for Asians in 2005 and 2015



Notes: Income shares for the top ten percent are calculated for all individuals within each of these race group subpopulations for the year 2005 and 2015 and plotted accordingly. The category of non-Hispanic white is provided as a comparison; the Total Asian category indicates what would typically be shown with disaggregated data.

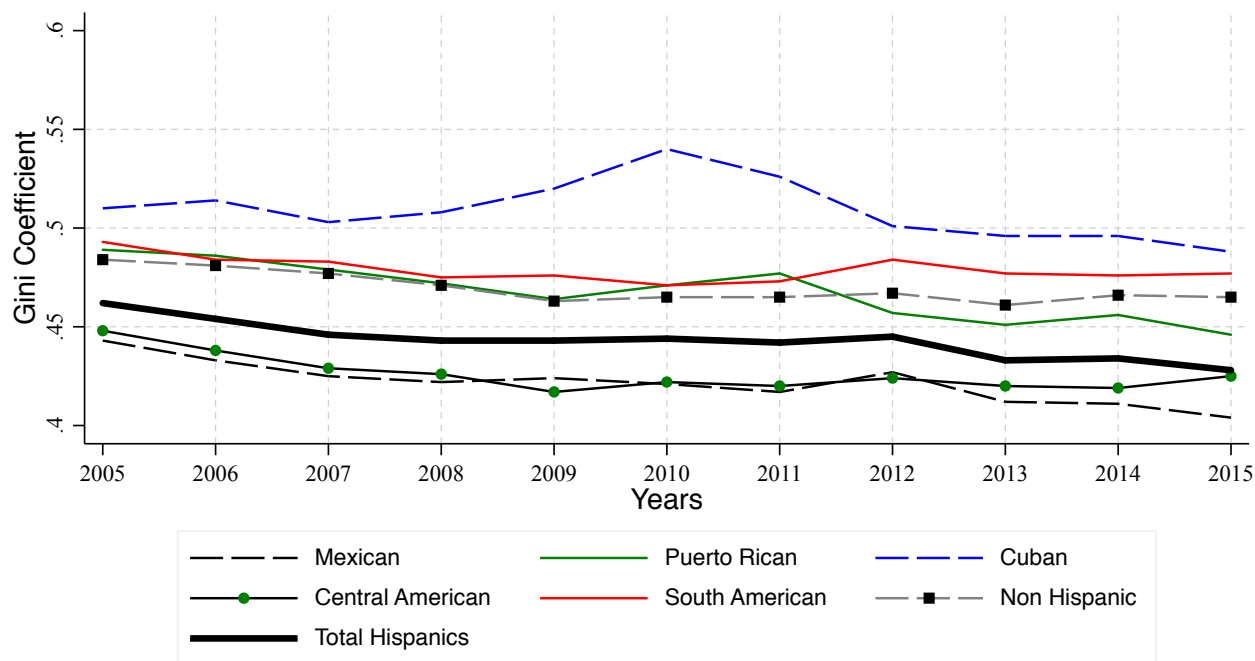
Table 5: Proportions of Race Groups by Subgroups

	Panel	Labor Market Entrant	New Immigrants	Total
Non-Hispanic White	63,877,211	9,640,384	30,742	73,548,337
	86.85	13.11	0.04	100
Asian	4,851,303	1,225,744	58,203	6,135,250
	79.07	19.98	0.95	100
Hispanic	10,501,819	2,600,109	36,548	13,138,476
	79.93	19.79	0.28	100
Total	79,230,333	13,466,237	125,493	92,822,063
	85.36	14.51	0.14	100

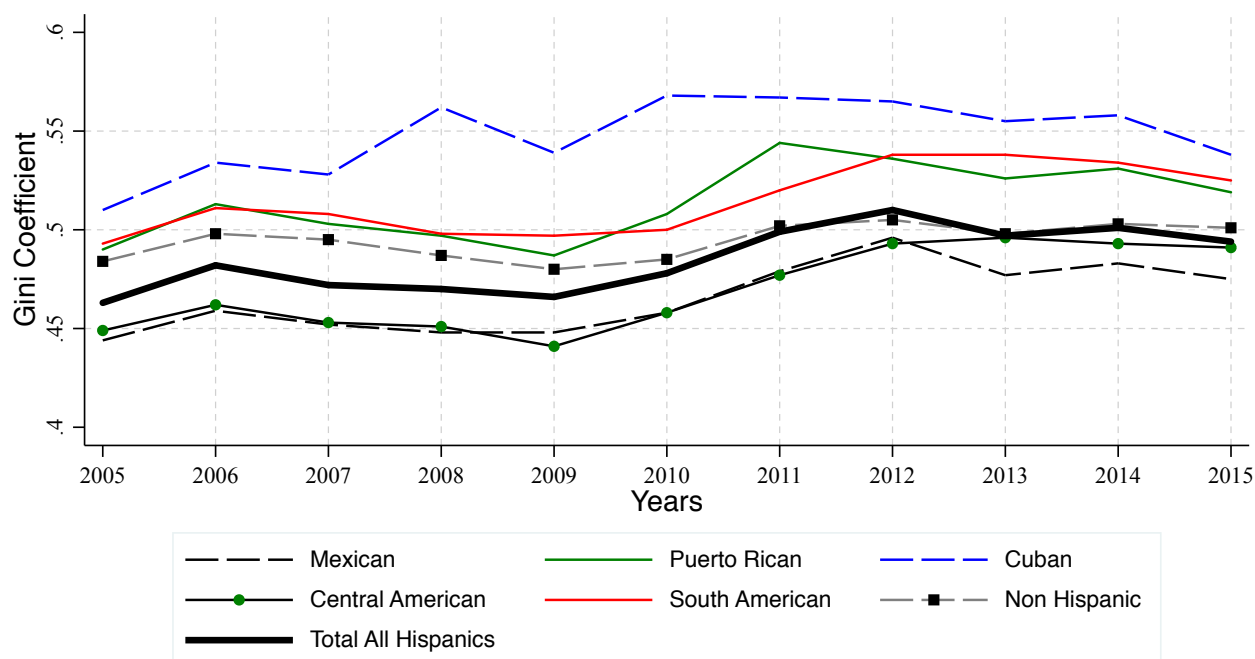
Source: Public-Use American Community Survey, 2016 from Steven Ruggles, Sarah Flood, Sophia Foster, Ronald Goeken, Jose Pacas, Megan Schouweiler and Matthew Sobek. IPUMS USA: Version 11.0 [dataset]. Minneapolis, MN: IPUMS, 2021. <https://doi.org/10.18128/D010.V11.0>

Figure 3: Gini Coefficients for Hispanics

Panel A: Gini Coefficients for Hispanics Panel Data



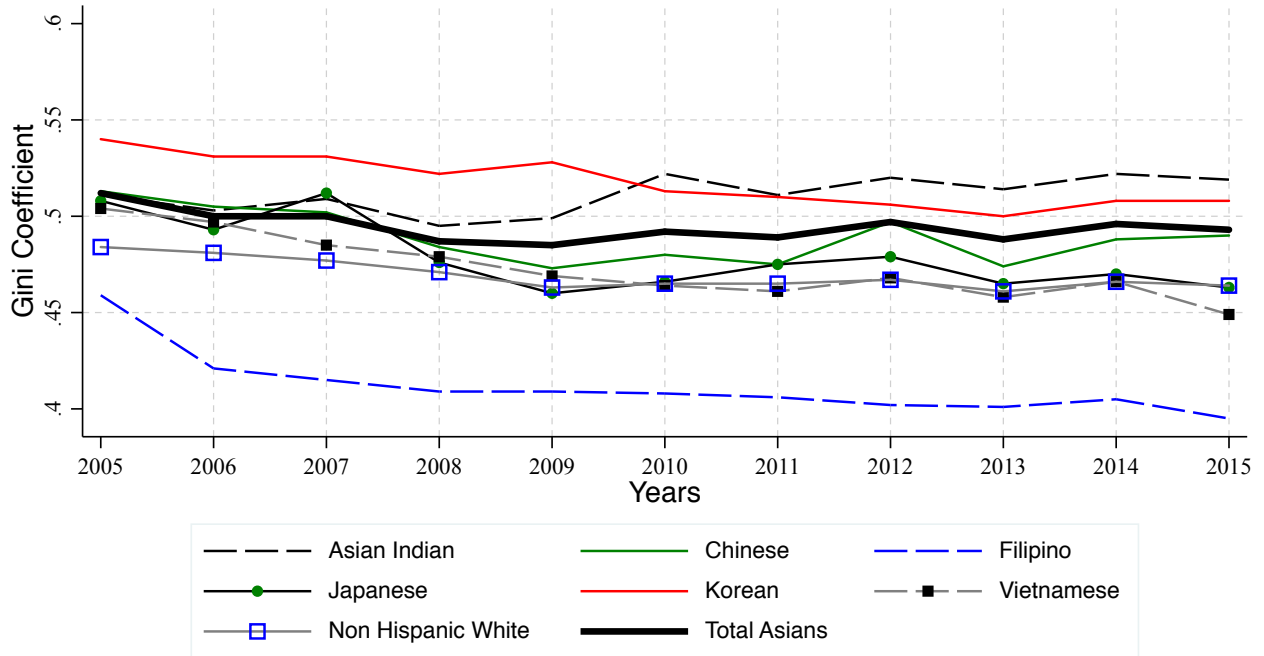
Panel B: Gini Coefficients for Hispanics Cross Section



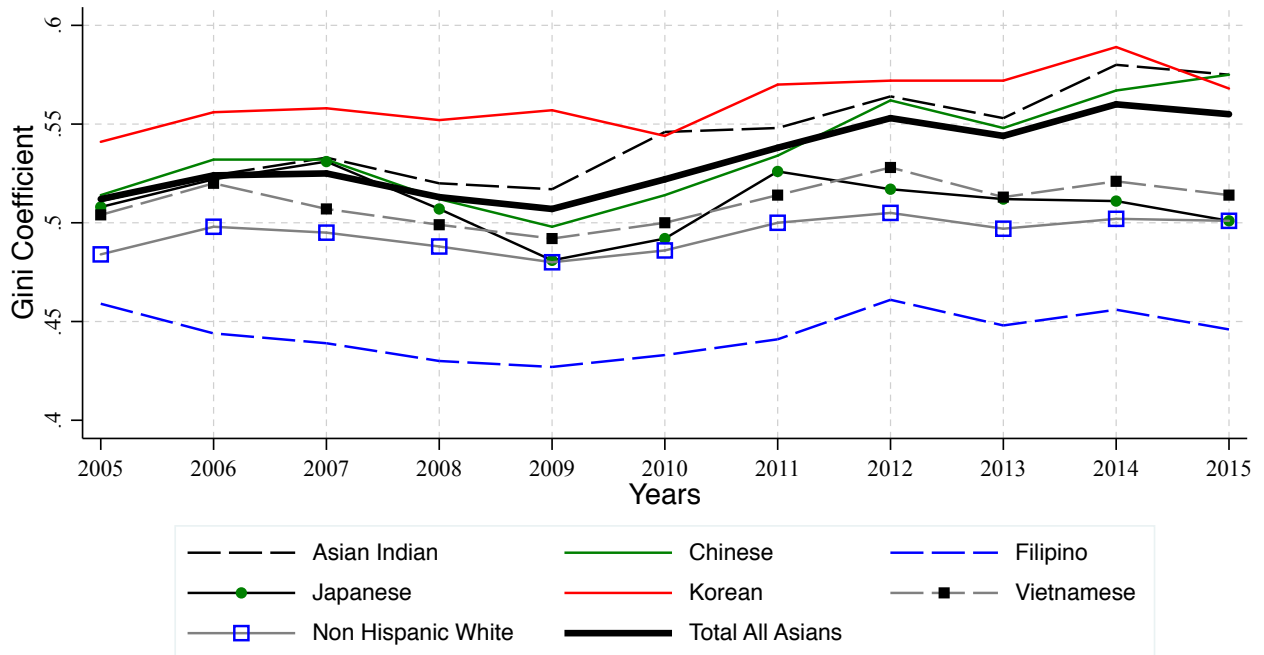
Notes: Gini coefficients are calculated within each year separately and plotted for each race or ethnic subgroup. The category of non-Hispanic white is provided as a comparison; the Total Hispanic category indicates what would typically be shown with disaggregated data. The first panel includes observations for individuals continually included in the data for all years 2005-2015; the second panel includes the observations from the prior panel plus new labor market entrants and any new immigrants as well.

Figure 4: Gini Coefficients for Asians

Panel A: Gini Coefficients for Asian Panel Data



Panel B: Gini Coefficients for Asian Cross Section



Notes: Gini coefficients are calculated within each year separately and plotted for each race or ethnic subgroup. The category of non-Hispanic white is provided as a comparison; the Total Asian category indicates what would typically be shown with disaggregated data. The first panel includes observations for individuals continually included in the data for all years 2005-2015; the second panel includes the observations from the prior panel plus new labor market entrants and any new immigrants as well.

5 Rank Mobility

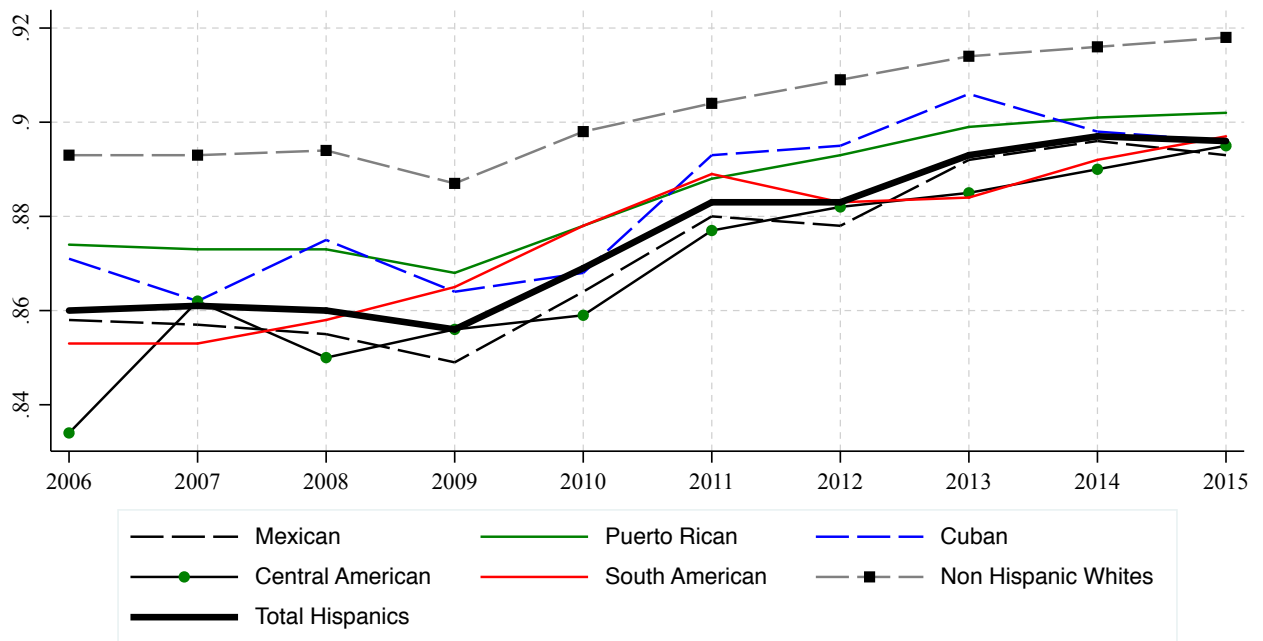
In Figure 5 below, we show the estimated coefficients from a rank-rank correlation for individuals from various Hispanic subgroups. This measure simply calculates the correlation coefficient from a single individual's own rank in the earnings distribution in year t compared to year $t+1$. We then calculate the subgroup average for each year and report those in the figures shown.⁴ A higher correlation indicates more immobility in the earnings distribution; values closer to one indicate more immobility while those closer to zero indicate more fluidity in the earnings distribution between the two time periods.

Over time the rank correlations for all groups move upward. This indicates that there is more immobility for all of the Hispanic (and non-Hispanic white) subgroups between 2005 and 2015. In plain terms this implies that individuals are less likely to experience a change in their placement in the earnings distribution over time. For all Hispanic subgroups, the level of mobility is higher than for non-Hispanic Whites at all years. The rank correlations of the various Hispanic subgroups are relatively closely clustered with one another across all years with Puerto Ricans and Cubans experiencing the largest immobility in general.

Figure 6 provides a similar set of figures for Asians. There appears to be an overall increase in immobility for all Asian subgroups over time. The Chinese group appears to have the highest persistent levels of earnings immobility across all years in our data. The range of rank correlations is more compact for Asians than it was for Hispanics; the values range from about 0.87 to 0.92 while there was a larger range for Hispanics (0.83 to 0.92). Additionally, the various Asian subgroups tend to cluster around the non-Hispanic white rank correlations for almost all years.

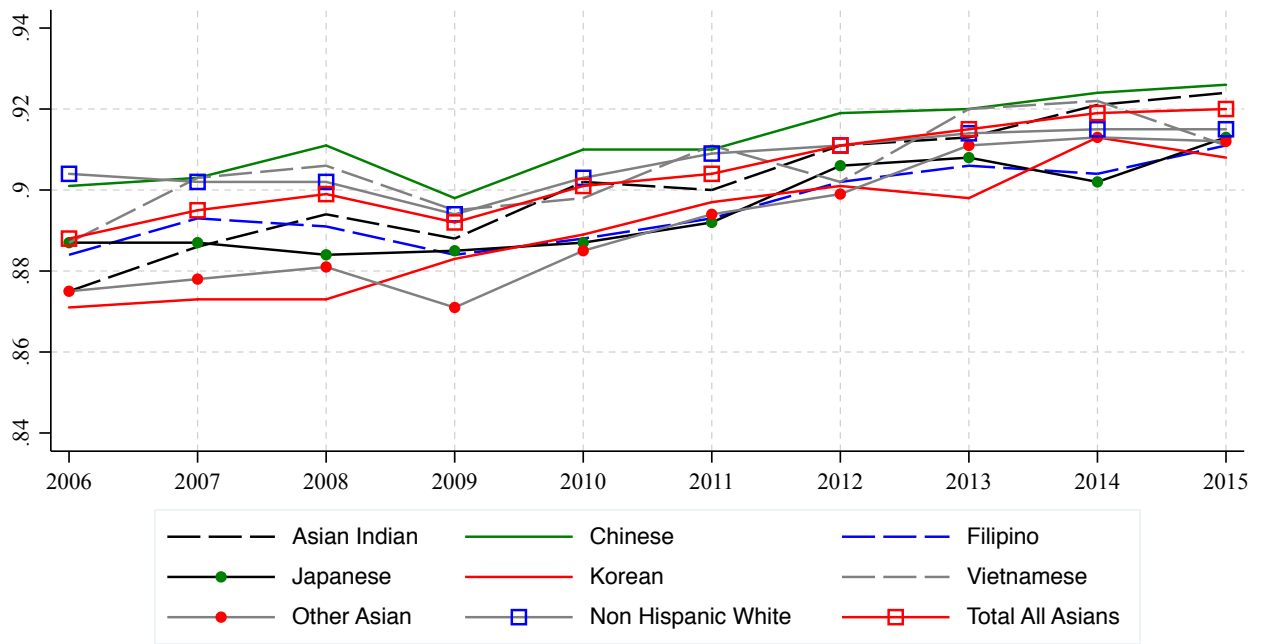
⁴Our analysis is restricted to only the panel data for the rank correlation figure below as it is necessary to have an individual linked across time for these calculations. It is not possible to calculate a similar rank correlation for repeated cross section data.

Figure 5: Rank Correlations for Hispanics Panel



Notes: Rank correlations of earnings are calculated for the same individual and then these are averaged among all observations within the same race or ethnic subgroup. These subgroup correlations are then plotted for each race or ethnic subgroup in the figure. The category of non-Hispanic white is provided as a comparison; the Total Hispanic category indicates what would typically be shown with disaggregated data.

Figure 6: Rank Correlations for Asian Panel



Notes: Rank correlations of earnings are calculated for the same individual and then these are averaged among all observations within the same race or ethnic subgroup. These subgroup correlations are then plotted for each race or ethnic subgroup in the figure. The category of non-Hispanic white is provided as a comparison; the Total Asian category indicates what would typically be shown with disaggregated data.

6 Conclusion

Using a novel data set that links detailed race and ethnicity information to individual IRS earnings information over the period 2005-2015, we document the difference in inequality and immobility over the Asian and Hispanic groups. Our analysis focuses on disaggregated Asian and Hispanic earnings by their main subgroups for relatively young adults aged 18-45. To our knowledge, this is the first longitudinal study of earnings inequality and immobility for these two groups disaggregated into subgroups.

We find that for Hispanics and Asians there are significant differences in earnings inequality, as indicated by Gini coefficients. Filipinos tend to have much lower earnings inequality than all other groups – including non-Hispanic whites. On the other hand, Asian Indians tend to have some of the highest levels of earnings inequality consistently over all of the sample years. In the data for Hispanic earnings inequality, Cubans have consistently higher inequality than all other groups with Central Americans and Mexicans having the lowest levels of earnings inequality.

Given the unique nature of our data and the available information on year of immigration to the U.S. (if at all) and prior earnings histories, we are able to characterize individuals as new arrivals to the U.S. or as new labor market entrants. In particular, this information allows us to compare earnings inequality by the established Asian and Hispanic earners and the new labor market entrants and/or recent immigrants. Our analysis shows that earnings inequality for most Asian and Hispanic groups remained fairly constant if not slightly downward trending over the time period in our analysis. However, including new arrivals and labor market entrants significantly increased earnings inequality for all of the groups examined. This suggests that for certain groups the increase in observed inequality may be a result of the influx of new individuals; earnings inequality may be increasing for different groups for different reasons. Our results indicate one potential explanation for Asians and Hispanics in the U.S.

Finally, we have examined the earnings mobility of these different race and ethnic subgroups. Using the individually linked earnings records over time, we find that all race and ethnic subgroups experience an upward trend in earnings immobility after the Great Recession. This indicates that there is less movement within the earnings distribution for all race and subgroups over time. On average, however, the Hispanic subgroups have lower absolute levels than non-Hispanic whites for all years in our analysis; Cubans tend to have the highest levels of earnings immobility while Mexicans and South Americans tend to have the lowest levels of earnings immobility. Earnings immobility for the Asian subgroups tend to cluster around that of non-Hispanic whites. In fact, several groups including Chinese tend to have higher immobility than non-Hispanic whites while Koreans and Filipinos tend to have lower earnings immobility.

Our results show that group composition and data disaggregation can provide insight into the differences within race and ethnic groups. In the absence of disaggregated data, differential trends tend to be obscured. We have also found that for certain groups, the impact of new entrants to the labor market or new immigrants can have a profound effect on aggregate measures of inequality. Future work should account for these compositional differences, especially for certain race and ethnic groups. If certain groups experience more or less earnings mobility due to the inflow of new workers, this may play a role in our estimates of cross-race and cross-ethnic intergenerational mobility as well.

References

- Akee, R., M. R. Jones, and S. R. Porter (2019). Race matters: Income shares, income inequality, and income mobility for all us races. *Demography* 56(3), 999–1021.
- Bahrapour, T. and T. Mellnik (2021).
- Bloome, D. (2014). Racial inequality trends and the intergenerational persistence of income and family structure. *American sociological review* 79(6), 1196–1225.
- Bloome, D. and B. Western (2011). Cohort change and racial differences in educational and income mobility. *Social forces* 90(2), 375–395.
- Budiman, A., A. Cilluffo, and N. G. Ruiz (2019). Key facts about asian origin groups in the us. *Washington, DC: Pew Research Center*.
- Chetty, R., N. Hendren, M. R. Jones, and S. R. Porter (2020). Race and economic opportunity in the united states: An intergenerational perspective. *The Quarterly Journal of Economics* 135(2), 711–783.
- Derenoncourt, E. and C. Montialoux (2021). Minimum wages and racial inequality. *The Quarterly Journal of Economics* 136(1), 169–228.
- Horowitz, J. M., R. Igielnik, and R. Kochhar (2020). Trends in income and wealth inequality. *Pew Research Center* 9.
- Kochhar, R. and R. Fry (2014). Wealth inequality has widened along racial, ethnic lines since end of great recession. *Pew Research Center* 12(104), 121–145.
- Noe-Bustamante, L. (2019). Key facts about us hispanics and their diverse heritage. *Pew Research Center* 16.
- Ong, P. and D. T. Nakanishi (1996). Becoming citizens, becoming voters: The naturalization and political participation of asian pacific immigrants. *Reframing the immigration debate*, 275–305.
- Reardon, S. F. and K. Bischoff (2011). Income inequality and income segregation. *American journal of sociology* 116(4), 1092–1153.
- Schaeffer, K. (2019). The most common age among whites in us is 58—more than double that of racial and ethnic minorities. *Pew Research Center*.
- Snipp, C. M. and S. Y. Cheung (2016). Changes in racial and gender inequality since 1970. *The ANNALS of the American Academy of Political and Social Science* 663(1), 80–98.
- Wagner, D., M. Lane, et al. (2014). The person identification validation system (pvs): applying the center for administrative records research and applications’(carra) record linkage software. Technical report, Center for Economic Studies, US Census Bureau.

A Appendix Tables

Table A1: Earnings Shares for Hispanics

Percentile		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
10	Non Hispanic	0.004	0.005	0.005	0.005	0.005	0.005	0.005	0.006	0.006	0.006	0.006
10	Mexican	0.008	0.008	0.009	0.009	0.009	0.009	0.01	0.01	0.01	0.01	0.01
10	Puerto Rican	0.007	0.007	0.008	0.008	0.007	0.008	0.008	0.01	0.01	0.009	0.009
10	Cuban	0.004	0.004	0.005	0.004	0.005	0.004	0.004	0.005	0.005	0.005	0.004
10	Central Am	0.008	0.008	0.009	0.01	0.009	0.009	0.011	0.01	0.01	0.009	0.009
10	South Am	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.005	0.006
10	Spanish	0.005	0.006	0.006	0.007	0.006	0.006	0.007	0.006	0.007	0.007	0.007
10	Other Hispanic	0.008	0.009	0.01	0.01	0.01	0.009	0.01	0.01	0.01	0.01	0.01
10	Total Hispanic	0.007	0.008	0.008	0.008	0.008	0.008	0.009	0.009	0.009	0.009	0.009
90	Non Hispanic	0.373	0.378	0.381	0.374	0.363	0.371	0.376	0.384	0.378	0.387	0.386
90	Mexican	0.165	0.17	0.178	0.174	0.166	0.174	0.161	0.18	0.169	0.174	0.164
90	Puerto Rican	0.246	0.255	0.254	0.259	0.255	0.256	0.264	0.251	0.242	0.243	0.234
90	Cuban	0.43	0.45	0.428	0.428	0.465	0.484	0.471	0.414	0.403	0.415	0.434
90	Central Am	0.157	0.156	0.164	0.171	0.16	0.162	0.163	0.17	0.173	0.168	0.177
90	South Am	0.316	0.323	0.323	0.321	0.318	0.319	0.324	0.346	0.342	0.354	0.353
90	Spanish	0.35	0.357	0.346	0.348	0.338	0.344	0.361	0.376	0.354	0.339	0.339
90	Other Hispanic	0.175	0.177	0.177	0.17	0.17	0.18	0.184	0.181	0.184	0.2	0.197
90	Total Hispanic	0.208	0.214	0.217	0.216	0.213	0.22	0.215	0.221	0.213	0.217	0.213
95	Non Hispanic	0.264	0.271	0.274	0.267	0.253	0.262	0.268	0.277	0.27	0.279	0.278
95	Mexican	0.092	0.094	0.103	0.101	0.094	0.103	0.088	0.107	0.095	0.101	0.091
95	Puerto Rican	0.145	0.161	0.158	0.16	0.154	0.161	0.164	0.147	0.144	0.148	0.135
95	Cuban	0.317	0.337	0.321	0.325	0.358	0.382	0.373	0.306	0.297	0.3	0.334
95	Central Am	0.099	0.099	0.102	0.104	0.098	0.096	0.099	0.105	0.107	0.098	0.108
95	South Am	0.216	0.219	0.224	0.219	0.22	0.223	0.227	0.251	0.24	0.252	0.246
95	Spanish	0.232	0.246	0.237	0.24	0.228	0.235	0.246	0.263	0.243	0.234	0.233
95	Other Hispanic	0.093	0.097	0.099	0.094	0.094	0.1	0.105	0.103	0.096	0.113	0.108
95	Total Hispanic	0.127	0.132	0.136	0.135	0.132	0.14	0.134	0.14	0.131	0.135	0.131

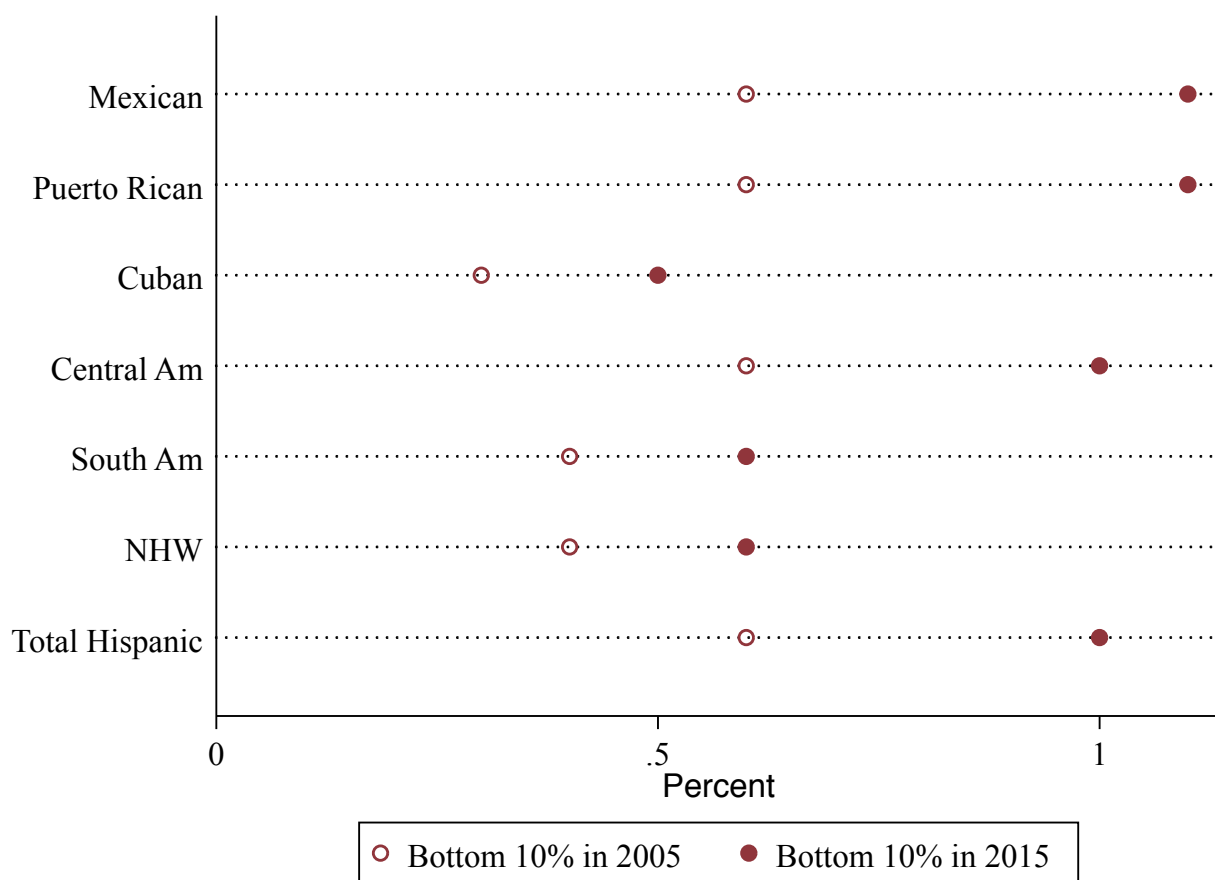
Source: American Community Survey Data for 2005 linked to IRS W2 or 1099 data for 2005-2015.

Table A2: Earnings Shares for Asians

Percentile		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
10	Asian Indian	0.002	0.003	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002
10	Chinese	0.004	0.004	0.004	0.004	0.004	0.003	0.003	0.003	0.004	0.003	0.003
10	Filipino	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
10	Japanese	0.003	0.003	0.004	0.004	0.004	0.003	0.004	0.004	0.004	0.004	0.004
10	Korean	0.007	0.008	0.008	0.007	0.006	0.006	0.006	0.006	0.007	0.006	0.006
10	Vietnamese	0.006	0.007	0.008	0.008	0.006	0.006	0.007	0.007	0.007	0.007	0.006
10	Other Asian	0.007	0.008	0.007	0.008	0.008	0.006	0.007	0.006	0.007	0.007	0.007
10	NHW	0.005	0.005	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006
10	Total Asians	0.004	0.004	0.004	0.004	0.004	0.003	0.004	0.004	0.004	0.004	0.004
90	Asian Indian	0.584	0.599	0.624	0.616	0.632	0.657	0.653	0.67	0.672	0.676	0.68
90	Chinese	0.518	0.521	0.532	0.529	0.528	0.542	0.547	0.57	0.553	0.571	0.573
90	Filipino	0.332	0.303	0.303	0.302	0.307	0.295	0.288	0.293	0.286	0.296	0.287
90	Japanese	0.486	0.464	0.457	0.427	0.408	0.419	0.418	0.431	0.429	0.428	0.416
90	Korean	0.435	0.437	0.45	0.458	0.473	0.462	0.466	0.478	0.475	0.494	0.488
90	Vietnamese	0.336	0.353	0.343	0.341	0.334	0.343	0.349	0.36	0.364	0.37	0.355
90	Other Asian	0.295	0.312	0.318	0.333	0.331	0.347	0.356	0.361	0.364	0.357	0.37
90	NHW	0.36	0.366	0.368	0.361	0.348	0.356	0.362	0.369	0.362	0.37	0.37
90	Total Asians	0.472	0.474	0.486	0.48	0.485	0.499	0.498	0.515	0.509	0.52	0.519
95	Asian Indian	0.41	0.422	0.455	0.444	0.459	0.494	0.49	0.501	0.503	0.512	0.519
95	Chinese	0.358	0.363	0.37	0.366	0.364	0.378	0.387	0.416	0.393	0.412	0.416
95	Filipino	0.193	0.155	0.154	0.152	0.154	0.148	0.139	0.141	0.145	0.155	0.145
95	Japanese	0.363	0.343	0.337	0.295	0.272	0.282	0.283	0.305	0.296	0.302	0.286
95	Korean	0.304	0.308	0.322	0.321	0.334	0.316	0.326	0.337	0.318	0.35	0.347
95	Vietnamese	0.209	0.221	0.216	0.216	0.208	0.212	0.214	0.234	0.228	0.237	0.221
95	Other Asian	0.193	0.213	0.218	0.227	0.224	0.239	0.255	0.249	0.263	0.253	0.265
95	NHW	0.256	0.264	0.266	0.259	0.244	0.253	0.259	0.267	0.259	0.268	0.267
95	Total Asians	0.321	0.32	0.333	0.325	0.328	0.344	0.345	0.362	0.354	0.368	0.368

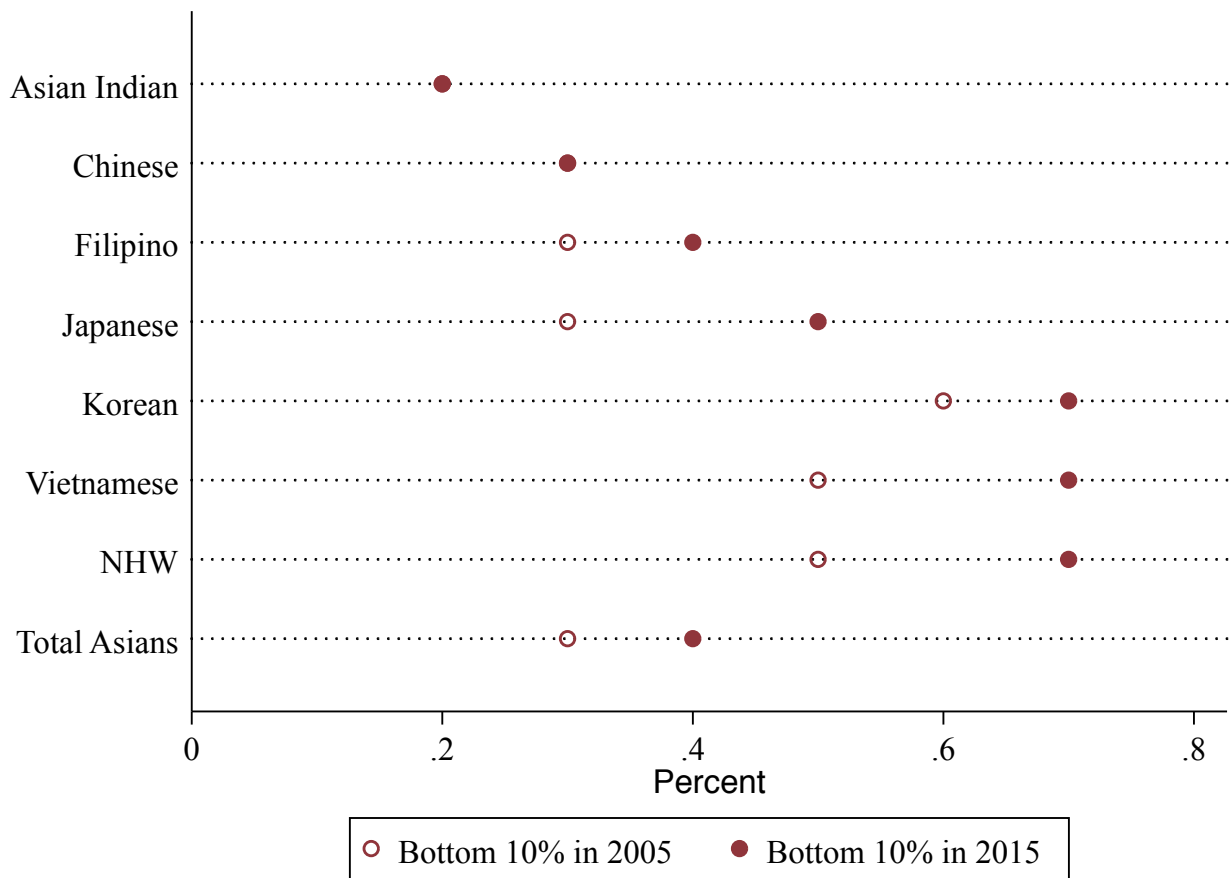
Source: American Community Survey Data for 2005 linked to IRS W2 or 1099 data for 2005-2015.

Figure A1: Bottom 10% Earnings Shares Panel for Hispanics in 2005 and 2015



Notes: Income shares for the bottom ten percent are calculated for all individuals within each of these ethnic group subpopulations for the year 2005 and 2015 and plotted accordingly. The category of non-Hispanic white is provided as a comparison; the Total Hispanic category indicates what would typically be shown with disaggregated data.

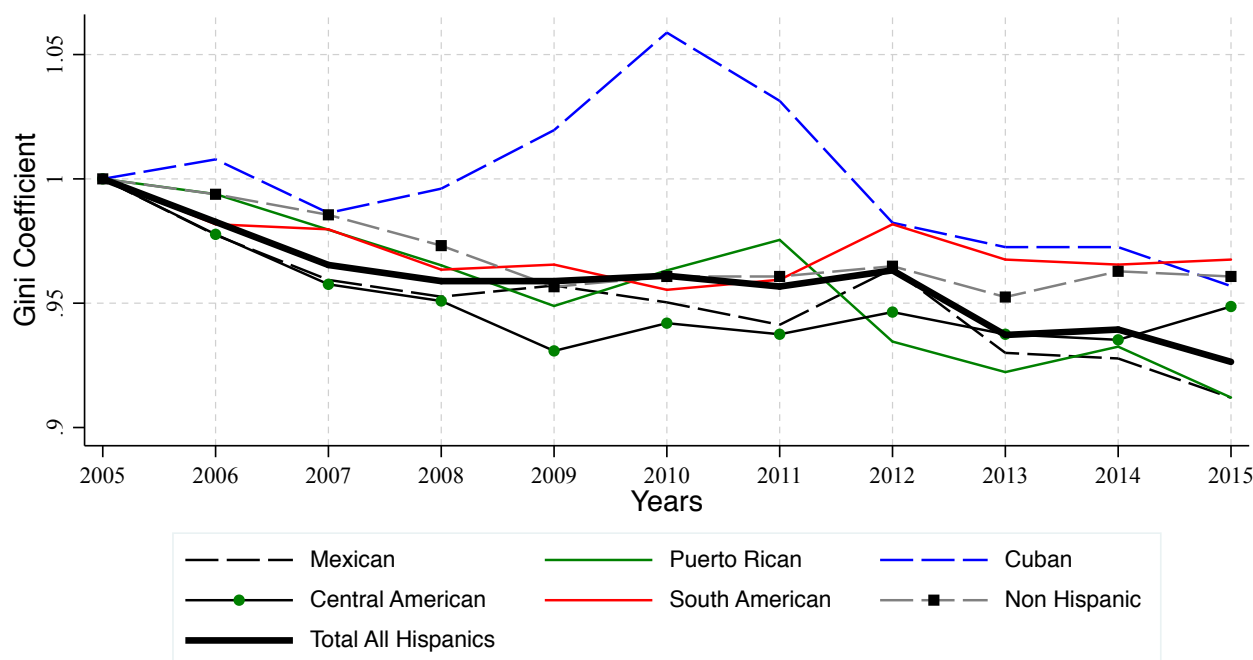
Figure A2: Bottom 10% Earnings Shares Panel for Asians in 2005 and 2015



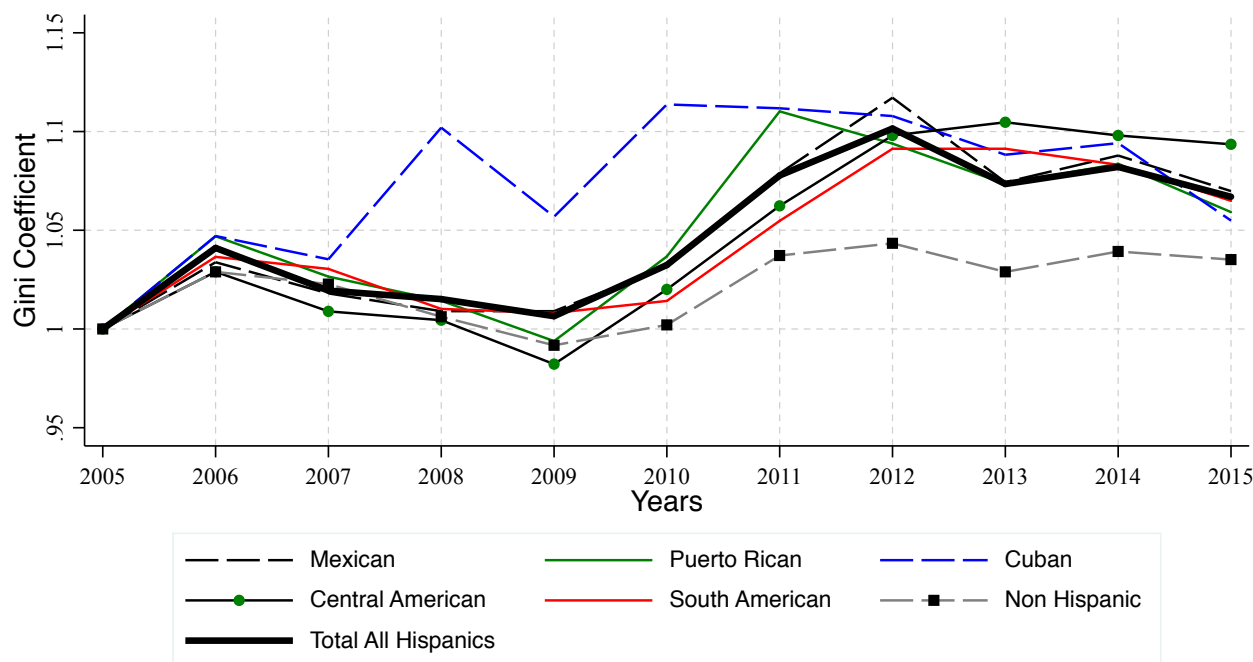
Notes: Income shares for the bottom ten percent are calculated for all individuals within each of these ethnic group subpopulations for the year 2005 and 2015 and plotted accordingly. The category of non-Hispanic white is provided as a comparison; the Total Hispanic category indicates what would typically be shown with disaggregated data.

Figure A3: Gini Coefficients for Hispanics with 2005 as Base Year

Gini Coefficients for Hispanics Panel Data with 2005 as Base Year



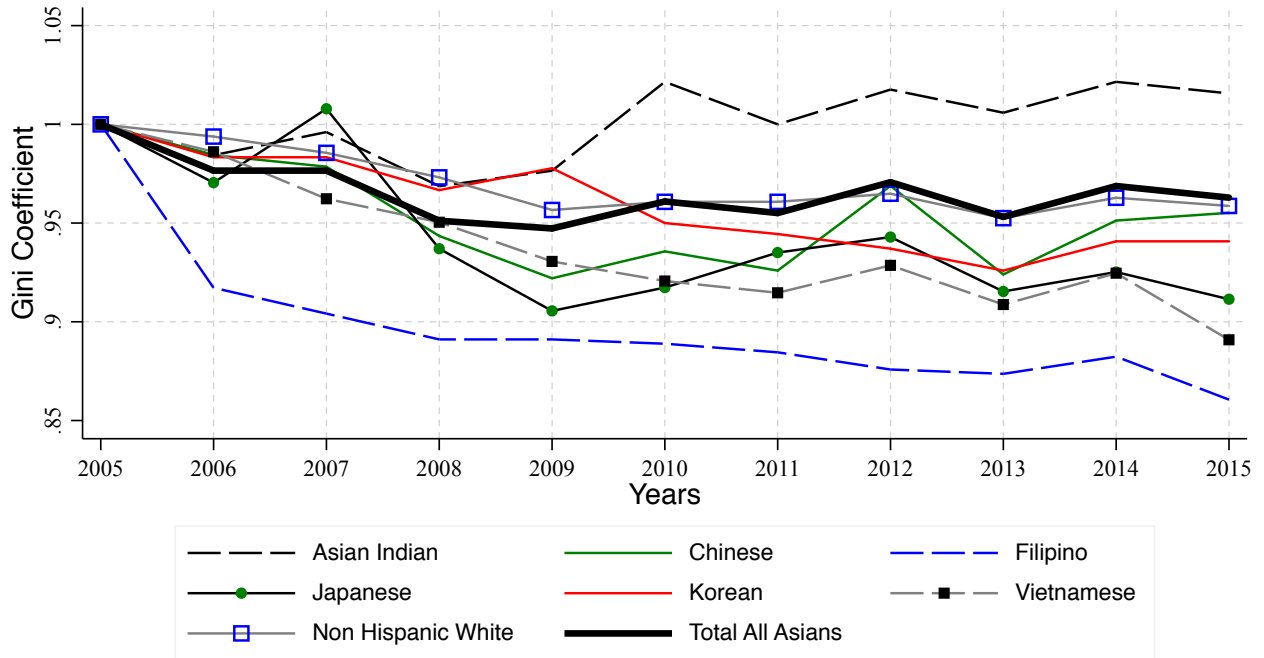
Gini Coefficients for Hispanics Cross Section with 2005 as Base Year



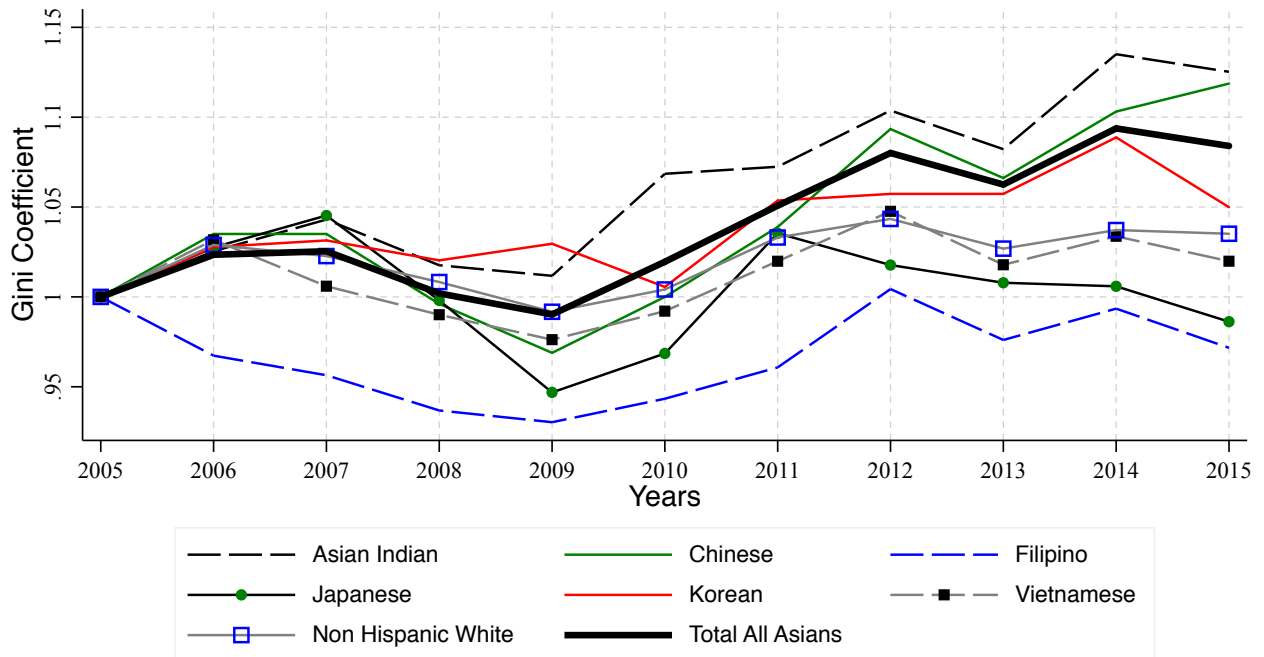
Notes: These two figures take 2005 as the base year and normalize all subsequent Gini coefficients by that amount. Thus, these figures indicate a relative change for the Gini coefficients relative to 2005. As was done previously, the Gini coefficients are calculated within each year separately and plotted for each race or ethnic subgroup. The category of non-Hispanic white is provided as a comparison; the Total Hispanic category indicates what would typically be shown with disaggregated data. The first panel includes observations for individuals continually included in the data for all years 2005-2015; the second panel includes the observations from the prior panel plus new labor market entrants and any new immigrants as well.

Figure A4: Gini Coefficients for Asians with 2005 as Base Year

Gini Coefficients for Asians Panel with 2005 as Base Year



Gini Coefficients for Asians Cross Section with 2005 as Base Year



Notes: These two figures take 2005 as the base year and normalize all subsequent Gini coefficients by that amount. Thus, these figures indicate a relative change for the Gini coefficients relative to 2005. As was done previously, the Gini coefficients are calculated within each year separately and plotted for each race or ethnic subgroup. The category of non-Hispanic white is provided as a comparison; the Total Asian category indicates what would typically be shown with disaggregated data. The first panel includes observations for individuals continually included in the data for all years 2005-2015; the second panel includes the observations from the prior panel plus new labor market entrants and any new immigrants as well.